

Application/Control No.: 10/578,801
Examiner: Lori Baker Amerson

IN THE CLAIMS:

1 (currently amended): Exercise apparatus for exercising lower limbs, in particular for exercising lower limbs to perform a cyclic muscular exercise, or consisting of an alternating succession of concentric and eccentric steps, characterised in that it comprises a carrying structure (12), to which at least one seat for the user (13) and a support and guide member (14) of two footboards (15), or support bases for feet, are constrained, as well as an actuator (16) connected to said support and guide member (14) of the footboards (15), wherein said support and guide member (14) is constrained to the carrying structure (12) by a pin or fulcrum (17) and is adapted for performing a hunting motion on a plane at least on one side relative to a longitudinal axis of the apparatus, said footboards (15) describing a curvilinear trajectory around the fulcrum (17), characterised in that said plane is horizontal.

2. (cancelled):

3. (original): Apparatus according to claim 1, characterised in that said support and guide member (14) of the footboards (15) comprises at least one bar, which forms a lever arm, connected at opposed ends to the carrying structure (12) in said fulcrum (17) as well as to said footboards (15), respectively.

4. (original): Apparatus according to claim 1, characterised in that said footboards (15) are turnably fixed to a plate (18) by an articulated joint (19) which allows their rotation around their axis.

5. (original): Apparatus according to claim 4, characterised in that said plate (18) is connected to the support and guide member (14) of the footboards (15) by a shaft or connecting element (23).

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6. (original): Apparatus according to claim 4, characterised in that said articulated joint (19) imposes an adjustment and a restriction to the rotation of the footboards (15).
7. (original): Apparatus according to claim 1, characterised in that it comprises means for adjusting the reciprocal distance (20) between said footboards (15).
8. (original): Apparatus according to claim 5, characterised in that said support plate (18) is free to rotate around the axis of shaft (23).
9. (original): Apparatus according to claim 1, characterised in that said actuator (16) is connected in an articulated manner at opposed ends to said carrying structure (12) and to said support and guide member (14) of the footboards (15), respectively.
10. (original): Apparatus according to claim 1, characterised in that said actuator (16) is a pneumatic piston moving inside a cylinder.
11. (original): Apparatus according to claim 1, characterised in that said actuator (16) is connected to the support and guide member (14) of the footboards (15) by a connecting element (21), the position of said element (21) being adjustable relative to the member (14).
12. (original): Apparatus according to claim 1, characterised in that said actuator (16) exerts a variable and adjustable power.
13. (original): Apparatus according to claim 1, characterised in that said actuator (16) has an adjustable stroke.
14. (original): Apparatus according to claim 4, characterised in that it comprises a means for adjusting (26) the position of the footboard carrying plate (18) on the support and guide member (14).

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15. (original): Apparatus according to claim 1, characterised in that said seat (13), rotating around the axis of a support pin (24), comprises means for adjusting (30) the distance between said pin (24) and the fulcrum (17) of the support and guide member (14) of the footboards (15).

16. (original): Apparatus according to claim 1, characterised in that it comprises a safety device for the automatic or controlled deactivation of the actuator (16).

17 – 23. (cancelled)

24. (original): Apparatus according to claim 1, characterised in that it comprises an electronic control system for said actuator (16).

25 – 26. (Cancelled)